UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
JEAN, FRANTZ B

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

| Office Action Summary | **Application No.** 10/691,273 | **Applicant(s)** THENTHIRUPERAI, BALAJI S. |
| | **Examiner** Frantz B. Jean | **Art Unit** 2151 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>03 May 2007</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-27</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-27</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-SB/08) Paper No(s)/Mail Date <u>4/19 & 5/03/07</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

This office action is in response to the RCE filed on 05/03/07. Claims 1-27 are

presented for examination for examination.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 4/19/07 and 5/03/07 is

in compliance with the provisions of 37 CFR 1.97. Accordingly, the information

disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-5, 11-17 and 24-26 are rejected under 35 U.S.C. 102(b) as being

anticipated by Cohn et al. ("Cohn") US publication Number 2002/0065074.

As per claim 1, Cohn teaches a method of streaming multimedia content in a

wireless communication system (PDA or cellular phone) comprising:

Receiving, in a data network, a request from a mobile device to stream

multimedia content to the mobile device from the data network, the request being

transmitted over a wireless connection (see par 0012 and 0026); streaming a portion of

the requested multimedia content from the data network to the mobile device (par

0026); detecting a termination of the wireless connection during the streaming; retaining

information in at least one of an entity in the data network and the mobile device, the

information indicating a point in the multimedia content stream where the termination of

the wireless connection occurred; re-establishing the wireless connection; and resuming

streaming of the multimedia content based on the retained information (par 0054, 0082,

0103, 0117-0121) and claims 1, 4, and 5).

As per claims 4-5, Cohn teaches retaining an identifier of a mobile device that

comprises a point-to-point protocol link identifier, a network address identifier and an

Internet protocol address (see par 0041).

As per claims 11-12 and 24-25, Cohn teaches communicating the retained

information from a multimedia gateway to an application/content server (see fig 1,

abstract and paragraph 0013); resuming streaming of the multimedia content from the

application/content server to the mobile device (par 0054, 0082, 0103, 0117-0121) and

claims 1, 4, and 5), via a multicast router at one of:

The point in the multimedia content stream where the termination of the wireless

connection was detected; and a predetermined time period earlier in the multimedia

content stream than the point where the termination was detected (par 0054, 0082,

0103, 0117-0121) and claims 1, 4, and 5).

As per claim 13, Cohn teaches communicating the retained information from an

application/content server to a first multimedia gateway; and storing the retained

information in a database operatively associated with the first multimedia gateway (fig 1,

abstract, and par 0013).

As per claim 14, Cohn teaches communicating the stored information from the first multimedia gateway to the application/content server; responsively sending logic resuming streaming of the multimedia content from the application/content server to one of the fist multimedia gateway and a second multimedia gateway (par 0054, 0082, 0103, 0117-0121) and claims 1, 4, and 5); and executing the logic with one of the first multimedia gateway and a second multimedia gateway to resume the multimedia content stream (par 0054, 0082, 0103, 0117-0121) and claims 1, 4, and 5).

As per claim 15, Cohn teaches resuming occurs automatically in response to reestablishing the wireless connection (par 0054, 0082, 0103, 0117-0121) and claims 1, 4, and 5).

As per claim 16, Cohn teaches responsively to reestablishing the wireless connection, providing a user with an option to resume streaming of the multimedia content or cancel streaming of the multimedia content; and resuming streaming of the multimedia content in response to a user indication to resume streaming (par 0054, 0082, 0103, 0117-0121) and claims 1, 4, and 5).

As per claims 17 and 26, Cohn teaches a method for streaming multimedia content in a wireless communication system comprising: receiving, via a packet network, a streaming protocol command from a mobile device, the command operating as a request that the multimedia content be streamed to the mobile device from an application/content server coupled with the network (see par 0012 and 0026); streaming at least a portion of the requested multimedia content from the application/content server to the mobile device via a multimedia gateway (0026); detecting a termination of

the wireless connection during streaming; retaining information in one of the multimedia

gateway and the application/content server, the information indicating a point in the

multimedia content where the termination of the wireless connection occurred; re-

establishing the wireless connection; and resuming streaming of the multimedia content

based on the retained information (par 0054, 0082, 0103, 0117-0121) and claims 1, 4,

and 5). Cohn also teaches sending the retained information to an entity in the network

(see fig 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-3 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Cohn in view of Zaima et al. ("Zaima") US patent number 7,071,942 B2.

As per claims 2 and 22, Cohn does not teach information is retained in an

extensible markup language tag attribute. Zaima teaches data and information in XML

tag attribute (see fig 3; col. 4 lines 13-26; col. 5 lines 30-51; col. 17 lines 21-23). It would

have been obvious to one of ordinary skill in the art at the time of the invention to

combine Zaima's XML to Cohn's multimedia system because XML data is versatile and

user's friendly (see col. 25 line 65 to col. 26 line 3). One skill artisan at the time of the

invention would be motivated to do so because tagging information in an XML it would

allow a user to be easily informed of the content of a data by reading the XML data (see

Zaima c0ol 4 lines 22-26).

As per claims 3 and 23, Cohn teaches retaining information contains a time-

stamp associated with a point in the multimedia content stream where termination of the

wireless connection occurred (see Cohn Para 0054). However, Cohn fails to teach

SMLI. Zaima discloses a SMIL (see Zaima col. 17 lines 17-47). It must be noted that

SMIL data is a markup tagging language in which an still image, a time-varying image,

position of music data are written as XML subsets (see Zaima col. 17 lines 21-23).

Therefore, the motivation recited in claim 2 above is applied to this claim as well.

Claims 6-7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Cohn in view of Applicant's background of the invention.

As per claim 6-7 and 18, Cohn fails to recite a request and streaming in

accordance to RTSP. ABI discloses this feature (see page 3 of ABI, first paragraph). It

would have been obvious to one of ordinary skill in the art at the time of the invention to

incorporate a RTSP in Cohn's system to stream any size media clip in order to save

memory space.

Claims 8-10 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Cohn in view of Grob et al. hereinafter ("Grob") US patent Number 6,894,994 B1.

As per claims 8-10, Cohn teaches communicating the multimedia content from

an application/content host to a multimedia gateway via a multicast router (see fig 1,

abstract and paragraph 0013). However, Cohn fails to teach communicating the multimedia content from the multimedia gateway to a home agent device; communicating the multimedia content from the home agent device to a packet data serving node (PDSN); communicating the multimedia content from PDSN to a base station controller (BSC); communicating the multimedia content from the BSC to a base transceiver station (BTS); and communicating the multimedia content from the BTS to the mobile device. Furthermore, Cohn fails to teach determining, at a base station controller, that a number of bad communication frames received from the mobile device is greater that a threshold level; and notifying one of the multimedia gateway and an application/content server that termination of the wireless connection has occurred; furthermore, Cohn fails to teach determining, at a base station controller, that the wireless connection cannot be handed off fro a first (BTS) to a second (BTS); notifying one of the multimedia gateway and an application/content server that termination of the wireless connection has occurred. Grob discloses all these features (see Grob fig 6-8; col. 10 line 41 to col. 11 line 50; col. 21 line 10 to col. 22 line 28; col. 24 lines 42-47). It would be obvious to one of ordinary skill in the art at the time of the invention to combine Grob's features with Cohns' system to increase data transmission in Cohn's at any particular moment. One skill artisan at the time of the invention would be motivated to do so to improve and facilitate high data rate, data traffic and wireless packet data communication in the system (see Grob col. 2 lines 2-9).

As per claim 27, Cohn teaches a multimedia gateway included in a data network

having a set of instructions stored therein, that when executed, the instructions provide

for: receiving a streaming protocol command from a mobile device, the command

operating as a request that the multimedia content be streamed to the mobile device

from an application/content server coupled with the network (see par 0012 and 0026);

streaming at least a portion of the requested multimedia content from the

application/content server to the mobile device (0026); receiving a notification that a

termination of the wireless connection occurred during the streaming and

communicating the notification to the server are inherent in Cohn because it precedes

the steps of resumption of file transmission and re-establishing connection (see par

0054 and 0082); receiving information indicating a point in the multimedia content

stream where the termination of the wireless connection occurred and an identifier of

the mobile device (resuming from the last successful point par 0054 and 0082); stored

the received information in a database; reestablishing connection; sending the received

information to the server; receiving logic from the server and executing to the received

logic to resume streaming based on information received (par 0054, 0082, 0103, 0117-

0121) and claims 1, 4, and 5). Cohn does not teach PDSN. However, Grob discloses a

PDSN see fig 5-6. It would have been obvious to one ordinary skill in the art at the time

of the invention to combine Gob's PDSN feature with Cohn's system so it would provide

packet data service to the access terminal. One skill artisan would be motivated to do

so because PDSN would facilitate network access point such as PPP and IP protocols

(see Gob col. 9 lines 52-65).

Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Cohn in view of the ABI (Applicants' Background of the Invention) and Grob et al.

hereinafter ("Grob") US patent Number 6,894,994 B1.

As per claims 19-21, Cohn teaches communicating the multimedia content from

an application/content host to a multimedia gateway via a multicast router (see fig 1,

abstract and paragraph 0013). Cohn fails to recite a request and streaming in

accordance to RTSP. ABI discloses this feature (see page 3 of ABI, first paragraph). It

would have been obvious to one of ordinary skill in the art at the time of the invention to

incorporate a RTSP in Cohn's system to stream any size media clip in order to save

memory space. Furthermore, Cohn and ABI fail to teach communicating the multimedia

content from the application/content server to the mobile device via a home agent, a

packet data serving node (PDSN), a base station controller (BSC), a base transceiver

station (BTS). Furthermore, Cohn and ABI fail to teach determining, at a base station

controller, that a number of bad communication frames received from the mobile device

is greater that a threshold level; and notifying one of the multimedia gateway and an

application/content server that termination of the wireless connection has occurred;

furthermore, Cohn and ABI fail to teach determining, at a base station controller, that

the wireless connection cannot be handed off fro a first (BTS) to a second (BTS);

notifying one of the multimedia gateway and an application/content server that

termination of the wireless connection has occurred. Grob discloses all these features

(see Grob fig 6-8; col. 10 line 41 to col. 11 line 50; col. 21 line 10 to col. 22 line 28; col.

24 lines 42-47). It would be obvious to one of ordinary skill in the art at the time of the

invention to combine Grob's features with Cohns' and ABI's system to increase data

transmission in Cohn's at any particular moment. One skill artisan at the time of the

invention would be motivated to do so to improve and facilitate high data rate, data

traffic and wireless packet data communication in the system (see Grob col. 2 lines 2-9).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Frantz B. Jean whose telephone number is 571-272-

3937. The examiner can normally be reached on 8:30-6:00 M-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Zarni Maung can be reached on 571 272 3939. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FRANTZ B. JEAN
PRIMARY EXAMINER

Frantz Jean